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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Andreas Pein

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EXAMINER

MILES, JONATHAN WADE

ART UNIT

PAPER NUMBER

3731

MAIL DATE

DELIVERY MODE

07/21/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/561,725	Applicant(s) PEIN, ANDREAS	
	Examiner JONATHAN W. MILES	Art Unit 3731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/20/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the pressure/suction space [24], the annular membrane [26], the upper zone, the tapering annular space, the sealing lip [23], the connecting device, and the pressure tubule [30] must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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The drawings are objected to under 37 CFR 1.83(a) because they fail to show the details of the piston-cylinder unit as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 21-31. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is

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being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

It appears the applicant has submitted Fig. 1 twice and omitted Fig. 2. The examiner has proceeded with the First Office Action as best understood from the Specification and the Claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 8 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoder et al. (US 5871462).

Regarding Claim 8, Yoder et al. discloses a water jet apparatus for severing a biological structure with a jet of severing liquid comprising water (column 3, line 64), the water jet apparatus comprising a storage container for the severing liquid (column 4, line 24 [saline bag]; Fig. 1, [30]), a piston-cylinder unit comprising a cylinder (column 6, lines 11-12 [reusable pump housing]; Fig. 2, [26])) formed in a cylinder casing (column 6, line 10 [assembled pump]; Fig. 1, [24]) and the cylinder having a wall and a bottom (see Fig. 2), a piston received in the cylinder

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casing for reciprocal motion of the piston in the cylinder with space remaining adjacent the bottom of the cylinder (column 6, line 24; Fig. 2, [60]), the space functioning as a pressure space upon downstroke of the piston and as a suction space upon upstroke of the piston (column 7, line 58 [pumping chamber]; Fig. 3, [94]), and an annular membrane having an inside periphery attached to the cylinder wall at a position in an upper zone of the piston-cylinder unit and an outside periphery attached to the piston at a position in the upper zone of the piston-cylinder unit (column 7, line 16 [diaphragm]; Fig. 3, [86]), the upper zone being defined by an annular space above the suction-pressure space (column 6, line 31 [cylindrical chamber]; Fig. 2, [64]), the membrane sealing interior of the piston-cylinder unit below the membrane from exposure to the ambient outside the piston-cylinder unit and the membrane being dimensioned so as to allow reciprocation of the cylinder and the annular space being dimensioned so as to allow movement of the membrane therein as the piston reciprocates and the accommodate the membrane when the piston is at rest at end of a downstroke (column 7, lines 56-63), a manipulable operating device including the jet (column 4, line 28 [hand-held surgical jet wand]; Fig. 1, [40]), a suction line for conducting the severing liquid from the storage container to the suction-pressure space in the cylinder (column 4, line 26 [flexible tube]; Fig. 1, [32]), a pressure line for conducting the severing liquid from the suction-pressure space in the cylinder to the operating device (column 4, line 28 [delivery tube]; Fig. 1, [36]), and a coupling for attaching the eccentric drive to and detaching the eccentric drive from the piston (column 6, line 23 [pin]; Fig. 2, [62]), the piston-cylinder unit together with the suction line, the pressure line and the operating device constituting a sub-assembly which is attachable to and detachable from the eccentric drive by

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means of the coupling, whereby one such sub-assembly may be replaced with another such sub-assembly (see Fig. 1).

Regarding Claim 11, Yoder et al. discloses the water jet apparatus according to claim 8, further comprising a protruding sealing lip formed on the cylinder (column 6, line 46 [annular seal]; Fig. 2, [70]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

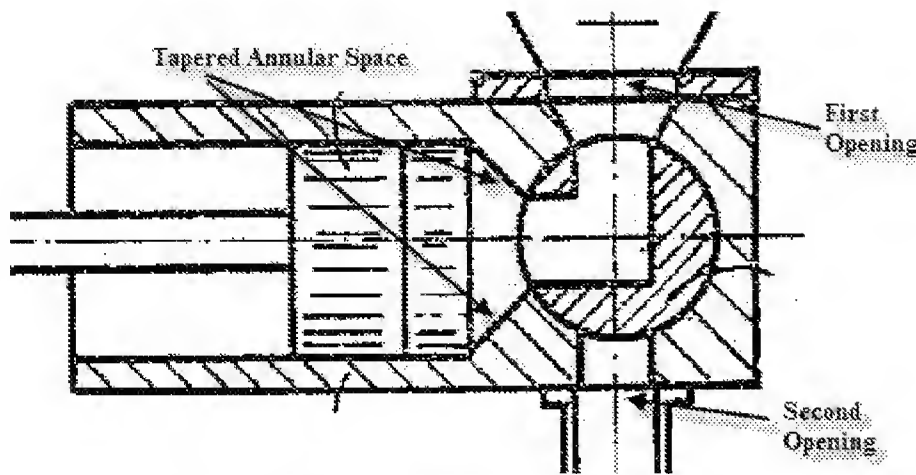
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoder et al. (US 5871462) in view of Gernlein (US 4234107).

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**Image 1 from Gernlein Fig. 2**

Regarding Claim 9, Yoder et al. discloses the water jet apparatus according to claim 8, but does not disclose wherein at least a lowermost portion of the annular space tapers inwardly in a downward direction toward the suction-pressure space, the taper being formed by a frustoconical portion of the cylinder wall.

However, Gernlein discloses a fluid pump wherein the lowermost portion of the annular space tapers inwardly in a downward direction toward the suction-pressure space, the taper being formed by a frustoconical portion of the cylinder wall (see Image 1 above).

It would have been an obvious matter of design choice to taper the annular space, since applicant has not disclosed that the taper solves any stated problem or is used for any particular purpose and it appears that the invention would perform equally well without such tapering.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoder et al. (US 5871462) in view of Allen (US 3622251).

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Regarding Claim 10, Yoder et al. discloses the water jet apparatus according to claim 8, but does not disclose the cylinder casing and the piston being constituted of plastic.

However, Allen discloses a cylinder casing and piston being constituted of plastic (column 2, lines 69-71).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the cylinder casing and piston of plastic, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoder et al. (US 5871462) in view of Rogers (US 4551146).

Regarding Claim 12, Yoder et al. discloses the water jet apparatus according to claim 8, further comprising: a connecting device installed in the cylinder for connected the pressure tube to the suction-pressure space (see Fig. 3 where the pressure tube [36] connects to the cylinder [26] and a first opening through the cylinder casing (column 7, line 50 [passage]; Fig. 3, [112]), and a connecting device comprising a pressure sleeve press fit into the first opening through the cylinder casing for effecting communication of the pressure line with the suction-pressure space (column 4, lines 41-45) but does not disclose the connecting device comprising a pressure tubule concentrically received in the pressure sleeve and having external ribs spaced from an interior wall of the pressure sleeve by a distance corresponding to thickness of a wall of the pressure line,

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the wall of the pressure line at an end portion of the pressure line being gripped between the ribs of the pressure tubule and the interior wall of the sleeve.

However Rogers discloses a connecting device comprising a pressure sleeve (column 3, line 22 [sleeve]; Fig. 3, [30]), a pressure tubule concentrically received in the pressure sleeve (column 3, line 22 [tube]; Fig. 3, [18]) and having external ribs spaced from an interior wall of the pressure sleeve by a distance corresponding to thickness of a wall of the pressure line (column 2, line 42; Fig. 3, [20]), the wall of the pressure line at an end portion of the pressure line being gripped between the ribs of the pressure tubule and the interior wall of the sleeve (column 2, lines 41-43; see Fig. 4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the pressure sleeve and the pressure tubule of Rogers with the water jet apparatus of Yoder et al. because it minimizes the possibility of a bacteria invasion (Rogers, column 1, lines 59-60). The motivation for the modification would have been to disinfect the connection during its use (Rogers, column 1, lines 12-13).

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoder et al. (US 5871462) in view of Rogers (US 4551146), in further view of Gernlein (US 4234107).

Regarding Claim 13, Yoder et al. in view of Rogers discloses the water jet apparatus according to claim 12, further comprising a second opening through the cylinder casing (Yoder et al., column 7, line 39 [passage]; see Fig. 1 where the suction line [32] connects to the cylinder [26], see in more detail in Fig. 3), the second opening effecting communication of the suction line with the suction-pressure space (Yoder et al., column 7, lines 39-41), but does not disclose

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the first and second openings being radially oriented and diametrically opposed with respect to the cylinder whereby the connecting device is installable in the first opening by initial insertion thereof through the second opening.

However Gernlein discloses a first and second openings being radially oriented and diametrically opposed with respect to the cylinder whereby the connecting device is installable in the first opening by initial insertion thereof through the second opening (see Image 1 above)..

It would have been an obvious matter of design choice to make the first and second openings radially oriented and diametrically opposed, since applicant has not disclosed that the orientation and positioning solves any stated problem or is used for any particular purpose and it appears that the invention would perform equally well with the first and second not diametrically opposed or placed at the end of the cylinder as in Gernlein.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JONATHAN W. MILES whose telephone number is (571)270-7777. The examiner can normally be reached on Monday-Thursday 7:30 am-5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anhtuan Nguyen can be reached on (571)272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JWM

/Anhtuan T. Nguyen/
Supervisory Patent Examiner, Art Unit 3731
7/20/09